

TOWN OF MIDDLETOWN
SANITARY SEWER PLAN CHECKLIST
Sheet 1 of 3

Checklist:

The following is the minimum information required:

- ☐ Submit completed checklist
- ☐ DNREC permit application and data sheets
- ☐ Sealed plans and computations
- ☐ Utility Permit form to DelDOT, if proposed work in DelDOT right-of-way

- ☐ Title Block (All Plans)
 - ☐ Engineering firm name, address and telephone number
 - ☐ Subdivision name and phase (if applicable)
 - ☐ Owner's name, address and telephone number
 - ☐ Hundred, county and state
 - ☐ Scale
 - ☐ Date
 - ☐ Sheet number

- ☐ Revision Block (All Plans)
 - ☐ Date
 - ☐ Revision Notes

- ☐ Cover Sheet
 - ☐ General Notes
 - ☐ Location Map
 - ☐ Title Block
 - ☐ Overall Site Plan

- ☐ Index Plan
 - ☐ 1" = 200' required scale
 - ☐ Location map
 - ☐ General Notes
 - ☐ Design Flow data
 - ☐ Number and type of units
 - ☐ Average and peak flows
 - ☐ Number of manholes
 - ☐ Number and size of sewer laterals
 - ☐ Linear feet of each size of pipe
 - ☐ Show outfall into existing sanitary sewer
 - ☐ North arrow

- ☐ Plans and Profiles
 - ☐ North arrow

- ___ Revision Block
- ___ Title Block
- ___ Existing and proposed grade
- ___ Depth of manhole
- ___ Concrete encasements
- ___ Matchlines
- ___ R.O.W. widths
- ___ Offset right or left for manholes
- ___ Complete plan and profile of the proposed system, to the existing sanitary sewer
- ___ Show plan and profile on the same sheet for the section of line shown
- ___ Dedicated street names shall be shown on the plan view
- ___ Easements shall be labelled and dimensioned (20' wide minimum)
- ___ Lot lines and numbers shall be shown in plan view
- ___ Pipe length, size and type shall be indicated on the profile, outfall pipe shall show the direction of flow in addition to size and type
- ___ Sewer mains should be as close to the center line of the road as possible. Curb crossings are unacceptable.
- ___ Acute flow angles are unacceptable
- ___ Maximum length of pipe between manholes is 300'
- ___ Manholes shall be numbered consecutively and have top and invert elevations and flow angles between lines on plan
- ___ Label manhole type
- ___ Laterals must be shown for all lots in view
- ___ When crossing existing state maintained roadways, information required by the State Utilities Manual, Section 18-2, shall be shown on the plans
- ___ All utilities crossing the sanitary sewer main shall be shown in plan and profile and labelled
- ___ Profiles shall be stationed
- ___ Manholes in profile shall be numbered to match plan and top and invert elevations and depth of MH shall be indicated
- ___ 3.5' is the minimum cover required over the sanitary sewer
- ___ Water line crossing shall have a minimum of 18" vertical separation between pipes
- ___ Provide a minimum 10' horizontal separation between sanitary sewer and watermain
- ___ Drainage pipes that cross the main shall warrant encasement in concrete of the sanitary sewer if less than 18" of separation is evident on up to 18" diameter drainage pipes, 3' of separation for larger drainage pipes
- ___ Road crossing details must be shown when crossing existing roads, patches shall conform to DelDOT Standards
- ___ Appropriate details shall be shown on the submission
- ___ Pumps shall include complete details, design charts and computations shown on the plan
- ___ On forcemains, indicate operating pressure and maximum allowable pipe pressure
- ___ Forcemains in profile and plan are treated the same as gravity lines. Show all C.O.'s instead of MH's

- ___ Forcemains and gravity mains require a note requiring magnetic indicator taper 12” below grade along the entire length of forcemain
- ___ Design shall conform to 10 States Standards for Sewerage Works and Middletown Construction Inspection Manual
- ___ MISS UTILITY note
- ___ Note for notification on Middletown 48 hours prior to commencement of work
- ___ Legend
- ___ Lateral table: lot number, lateral station, lateral size, lateral invert at sewer, lateral invert at property line, minimum elevation of lowest habitable level
- ___ In profile, maximum plumbing fixture depth line
- ___ Detail Sheet
 - ___ Title Block
 - ___ Revision Block
 - ___ Concrete encasement
 - ___ Separation detail
 - ___ House connection
 - ___ Lateral cleanout non-roadway
 - ___ Inside Drop Connection
 - ___ Lateral cleanout – roadway
 - ___ Manhole
 - ___ Lateral detail – drop house connection
 - ___ Pipe bedding